Claims

1. A glide submarine driven by multifunction, which has both underwater and overwater working performances, is mainly powered by means of wind energy resource (reusable and rich in the sea), and is driven by three media, i.e. glide, sail and propeller, comprising a high pressure resistant vessel body, a multi-function sail wing, an elevator, a vertical plane, an internal combustion engine, an electricity generator, a wind power generator, a high energy storage battery, a fuel battery, a foot-operated propeller power system, a submarine elevating controlling system, an inside water tank, two outer elevating water-air bags of changeable stream-linear mode, a sail wing controlling system, and a life maintaining system, a communication system and GPS (global positioning system), and an acoustic susceptance system (sonar system) etc.., characterized in that: a multi function sail wing (7) is provided above and outside the vessel, at the center of the sail wing (7), there being provided a rounded hole and means for fixing the wind power generator (28), and a storage battery system (27), and a parallel connecting electric pumps operated submarine elevating system (40) being provided inside the submarine, when the submarine is in an over-water traveling or anchoring condition, the multifunction sail wing (7) is in a sail working condition or a wind collecting

condition, at this time, the wing power electrical generator (28) is in an operation condition for charging the high energy storage battery system (27), when submarine being changed from the overwater traveling condition to an underwater working condition, the multifunction sail wing (7) being lowered and changed to a vessel wing working condition, the submerging control valve (37) being opened, because in normal condition the pressure of the water in the outer water bags (3) is always higher than the pressure of inside water tank, at this time, the water in the outer water bags flows into the inside water tank (23) to cause the outer water bags (3) to be contracted, the draining volume of the submarine to be reduced gradually, and the draught of submarine increases gradually, when the draining volume of the submarine reduces to cause the specific gravity of the vessel body is larger than that of water, the submarine sink down, at this time the connection valve is closed, the operating rod of elevator is activated, and the angle of elevator (2) and the multifunction sail wing (7)is adjusted, the submarine may move forwardly and downwardly with a certain angle, the parallel connecting electric pumps operated submarine elevating system (40) works, and the water within the tank (23) is drained into the outer water bags (3) through the one way draining valve for the water tank (350 and the one way valve (30, At this time, the water bags (3)

expand, and the specific gravity of the submarine reduces, when the specific gravity is smaller than the specific gravity of water, the submarine buoys up, at this time, the angle of elevator (2) is adjusted through operating rod of the elevator, so that the submarine may move upwardly and forwardly with a certain angle, until the submarine buoys out of water surface, if the submarine is not requested to buoy out of water surface, after the submarine reaches a certain height, the water within the outer water bags (3) may be drained into the inside water tank again to repeat previous submerging process, with such draining reciprocally, the submarine will advance under the water like a letter "Z" shape.

2. The glide submarine driven by multifunction according to claim 1, wherein when the submarine travels on water surface, the elevating control wheel (21) and the wing angle control wheel (20) are operated to raise the multifunction sail wing (7) through the sail wing control rope (16) and the wing angle control rope (13), and then the wind power generator (28) is installed and the windward angle is adjusted, so that the submarine is driven with the aid of wind power for advancing and the storage battery system (27) of the submarine is charged at the same time.

3. The glide submarine driven by multifunction according to one of claims 1-2, wherein the wind power electrical generator is of multi use

type, that is, it can either be provided with fan blade to be used as a wind power electrical generator, or driven by internal combustion engine to generate, and if necessary it can be used as electrical motor.

4. The glide submarine driven by multifunction according to claim 1, wherein a manual driving system (22) and an electrical driving system are further provided inside submarine, the manual driving system (22) being equipped with manual driving device which can be operated by a plurality of persons independently and simultaneously, and comprising a foot operated wheel disc, a transmission chain, a fly wheel, a positive and negative rotation converting and coupling devices etc., after treading the foot operated wheel disc, through the transmission chain, the flying wheel, the positive and the negative rotation converting and coupling devices, the propeller and, in turn, the rotating propeller (8) are driven, and the thrust generated by rotation of the propeller (8) is applied to the vessel body through the thrust bearing (25 for advancing the submarine forwardly.
5. The glide submarine driven by multifunction according to claim 1, wherein when submarine advances by gliding forwardly under water, or with the aid of sail advancing on water surface, the electrical motor or the internal combustion engine driving device is operated respectively to increase traveling speed of submarine. ·
6. The glide submarine driven by multifunction according to any one of

claim 1, 3 and 5, wherein the submarine is provided with the wind power generating electricity system, the fuel battery system or the internal combustion engine power system respectively or simultaneously, in traveling condition on water surface or in passed air tube traveling condition, the submarine equipped with the internal combustion engine power system may use the internal combustion engine power system to drive submarine for both advancing and charging storage battery system.

7. The glide submarine driven by multifunction according to claim 1, wherein a high pressure oxygen bottle (29), an air-filled valve (30) and an over pressure protecting air-filled valve (41) of submarine are provided inside the vessel, the air-filled valve (30) and the over pressure protecting air-filled valve (41) connect with corresponding mechanical or electrical testing and protecting devices, of which the function is: when submarine reaches to submerging safe boundary, while the operator does not adopt corresponding provision, the over pressure protecting air-filled valve (41) of submarine is opened by said protecting device, partial water within the high pressure resistant water tank (23) inside vessel is drained out of the vessel, then the submarine is going to buoy up, if this operation step is inefficiency, then air is filled into elevating water bag (3) directly through air filled valve, and the submarine is forced to buoy up to protect crew inside

vessel for safe.